

R E M A R K S

Claims 1-33 are pending and have been examined. The particular topics in the office action are addressed as follows.

The indication of allowable subject matter and withdrawal of some of the prior rejections in response to pre-appeal is acknowledged and appreciated. Claims 5 and 16 have been rewritten in independent form consistent with the indication of allowable subject matter.

Claims 22-27 are rejected under 35 U.S.C. §101. The rejection is respectfully traversed. 35 U.S.C. 101 is met because the claim is directed to a device, and the claimed software or hardware controls the hardware to perform functions in conjunction with other devices. There is no “non-transitory signal” claimed, instead there is device claimed. Also, the “software” is stored on the computer readable medium, which is overlooked in the application of the rejection. The *Bilski* decision explicitly rejected the “machine or transformation” test as the exclusive test, but even the machine test would be satisfied by the claimed device. Claim 22 is directed to the device that redirects requests from other devices and maintains communications. A claim directed to a device that emits signals is not a claim to a signal that is emitted. The §101 analysis based upon “non-transitory” signal is not claimed, nor is any signal. The device in the claim may generate signals, but there is not attempt to claim a signal in claim 22. The rejection should be withdrawn.

Claims 1-4, 13-14, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US#7,113,771) in view of Fischer (US2006/0203841). The rejection is respectfully traversed.

Kotzin is concerned with individual cellular network devices that also have local area communications. C1, L28-30. The individual devices are “an Internet appliance, radiotelephone appliance, including, but not limited to, handheld apparatus, laptop computers, desk top computers” and each of the units includes a “both a wireless local area network communication transceiver, such as a Bluetooth™-based transceiver, and a wireless

wide area network transceiver, such as a CDMA cellular transceiver.” C4, L1-11. A device in Kotzin can avoid the relatively narrow band data connections offered by cellular networks by sharing the wireless local area network connection of another individual device. C4, L39-55.

The independent claims have been amended to expedite prosecution and highlight the differences between the invention and the applied art. Individual cellular connections or Bluetooth are not fairly compared to the claimed clients that “comprise separate residential units or business units”. To further highlight the fundamentally different nature of Kotzin’s system (whether or not modified by Fischer), claims 1, 13 and 22 have been amended. The invention provides for increasing bandwidth of residential units or business units that have traditional wired access (e.g., DSL or MSO as specifically recited in new claim 34). This is achieved by using wireless communications to achieve spreading among the wired resources of the client.

Kotzin’s approach does not suggest such a technique for effective bandwidth increases that can be achieved by the amended claims and new claim 34. Kotzin does permit clients to share a resource with other clients, but the resource is the cell network that the clients are part of. As described in column 4, lines 1-55, the wireless units 106n in Kotzin use a local area network to allow other units to use their uplink or downlink communication resource with the wide area network. By this method, the range of a wireless unit can be extended. Column 4, lines 25-29. This can also be used to effectively increase the downlink and uplink bandwidth between the unit 106n and the wide area network 104. Column 3, lines 15-19; Column 4, lines 42-55. There is no suggestion in Kotzin or Kotzin/Fischer to share wired resources of individual residential units or business units via the wireless network.

Regarding Fischer, the Examiner points to the communication medium 102 that may be a coaxial or twisted pair connection. This is explicitly a “shared communication medium” [0030] of multiple devices, e.g., devices 90-94 or 96-100. [0030]. This does not meet the claim feature. In the claims “a plurality of the clients in the network of clients have

their own associated wired resource access connection.” In a shared communication medium as in Fischer each client does not have their own independent connection, and for this reason when one device accesses the medium 102 the other devices must refrain from accessing the medium 102. On this point, see Fischer at [0031]: “Since the other communication devices in the system know that the shared communication medium 102 is being accessed, they will not attempt to access the shared communication medium 102 until it becomes available, again, according to the time period indicated in the frame 106.” Clients that have their “own wired resource access connection” do not have to worry about avoiding “thus avoiding collisions from other devices while a different protocol is accessing the shared communication medium 102.” [0031]. Fischer doesn’t provide any method to share the “own wired resource connections” of a plurality of clients but instead provides access control to a single, common communication medium 102 that is shared by clients. Fishers’ devices all access the same medium 102 (considered the resource in the office action) and none of the personal devices use the “own” resource connection of another.

As Fischer merely controls access to a single medium 102, Fischer fails to suggest and, in fact, provides no capability to allow any spreading of communications as in the invention of claim 1. Each device shares the same medium 102 and therefore there is no opportunity of any of the devices to spread communications through the connection of another device. All communications in Fischer involve accessing the same communication medium, which will provide the bandwidth limitation of the system. In contrast, the method of claim 1 can expand the bandwidth of a client because it leverages the “own wired resource connections” of other clients in the step of spreading. Thus, for example, DSL lines of neighboring homes or business have a communication from a client spread through their connections, effectively providing significant additional bandwidth to the individual client.

In Fisher, there is the single medium that supports multiple protocols and access to the medium is controlled. “the first protocol module 80, 84 is configured to support a first protocol that enables the communication device 74,76 to communicate at a local area

network level and/or wide area network level using the shared communication medium 102, while the second protocol module is configured to support a second protocol that enables the communication device 72, 74 to communicate with the personal devices 90-94, 96-100 within its personal area network 70, 72 using the shared communication medium 102.” [0027]. For these reasons, Fischer only provides access control techniques for a shared, common medium. Fischer therefore fails to suggest any spreading of communications through multiple client’s own wired resource connections.

The rejection relies upon Fisher for alleging that each client has its own “wired resource access connection”, but Fischer offers no suggestion of any modification to Kotzin. Fischer provides access control to a medium where multiple protocols may interfere on the medium. This is discussed in [0027] where conflicts among distinct communication protocols that use a medium 102 are resolved. Accordingly, access is granted to the signal medium 102 avoid the conflicts created by different protocols such as SONET, ATM, TCP/IP, etc. There is no similar access issue in Kotzin, as Koztin only uses wireless resources that have their own communication mediums (namely, assigned frequency bands and encoding techniques). There is no protocol conflict with any medium in Kotzin, and therefore no artisan would look to Fischer to resolve any communication protocol conflict. For this reason, there is no expectation of success regarding applying Fischer to Koztin.

As seen in FIG. 1 of Koztin there are separate first and second wireless communication systems, e.g., a Bluetooth LAN and a GSM WAN. The individual LAN and WAN have their protocols that the devices will use to compete and the standards define the protocols, but each has a single protocol. Kotzin has no need for access control to a medium (wired or otherwise) that would provide access control so that multiple protocols could be used in the WAN or LAN.

Fischer also fails to suggest any client having its own resource connection, contrary to the allegation on page 4 of the office action. In Fischer, as stated in the last sentence of [0026], Fischer controls access to a *shared* medium. The fact that the medium is

shared indicates that the personal devices 90-94, 96-100 don't have their own medium.

Claims 15,20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin in view of Fischer, and further in view of US 6,119,162, Li (hereinafter Li). The above grounds of traversal are incorporated herein.

For all of the above reasons, applicant requests reconsideration and allowance of the application. The separate patentability of dependent claims not discussed is maintained. Should the examiner believe that outstanding issues exist and that a telephone conference would aid prosecution, the examiner is invited to contact the undersigned attorney at the below-listed number.

Respectfully submitted,

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